What is claimed is:

1. A method of detecting sequential data transfer

5   requests, comprising:

determining whether a first data transfer request crosses

a boundary address, and, if it does:

determining if the first data transfer request may

be indicated as combinable with subsequent data transfer

10   requests.

2. The method of claim 1, further comprising:

determining whether a previous data transfer request has

been indicated as combinable, and if it has been indicated as

15   combinable:

determining that a new data transfer request is

addressed adjacent to the previous data transfer request.

3. The method of claim 2, wherein determining the new

20   data transfer request is addressed adjacent comprises:

determining that the new data transfer request is

addressed within a specified minimum number of blocks as the

previous data request.

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4.   The method of claim 2, wherein a specified minimum number of boundary address crossings are determined before indicating data transfer requests may be combinable.

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5.   The method of claim 2, further comprising:

defining a boundary block length; and

determining the first data transfer request crosses an address equal to a multiple of the boundary block length

10   before indicating the first data transfer request may be combinable.

6.   The method of claim 5, further comprising:

setting a first tracking address equal to a multiple of

15   the boundary length;

determining a second data transfer request crosses the first tracking address; and

indicating the second data transfer request may be combinable with subsequent data transfer requests.

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7.. The method of claim 5, wherein the boundary block length comprises a number that is a power of two, wherein

determining whether the first data transfer request crosses a

boundary address comprises:

determining whether a most significant bit of the

boundary length is equal to a most significant bit of the

5   first data transfer request address.

8.   The method of claim 6, further comprising:

tracking at least two separate sequential streams for

sequential handling.

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9.   The method of claim 8, wherein tracking further

comprises:

storing a tracking address and a corresponding tracking

address counter value for each tracked sequential stream.

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10.   The method of claim 9, further comprising:

incrementing one of the tracking address counters for

each data transfer request determined adjacent to a previous

data transfer request; and

20   indicating that one of the tracked sequential streams may

be released as a combined I/O transfer when a corresponding

one of the tracking address counters is greater than a

specified maximum value.

11. The method of claim 10, further comprising:

decrementing one of the tracking address counters for

each data transfer request determined not adjacent to a

5   previous data transfer request.

12. An article comprising a machine-readable medium that

stores machine-executable instructions for detecting

sequential data transfer requests, the instructions causing a

10 machine to:

determine whether a first data transfer request crosses a

boundary address, and, if it does:

determine if the first data transfer request may be

indicated as combinable with subsequent data transfer

15 requests.

13. The article of claim 12, further comprising

instructions causing a machine to:

determine whether a previous data transfer request has

20 been indicated as combinable, and if it has been indicated as

combinable:

determine that a new data transfer request is

addressed adjacent to the previous data transfer request.

14. The article of claim 13, wherein determining the new data transfer request is addressed adjacent comprises determining that the new data transfer request is addressed
5   within a specified minimum number of blocks as the previous data request.

15. The article of claim 13, wherein a specified minimum number of boundary address crossings are determined before
10   indicating data transfer requests may be combinable.

16. The article of claim 13, further comprising instructions causing a machine to:

define a boundary block length; and
15   determine the first data transfer request crosses an address equal to a multiple of the boundary block length before indicating the first data transfer request may be combinable.

20   17. The article of claim 16, further comprising instructions causing a machine to:

set a first tracking address equal to the boundary block length;

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determine a second data transfer request crosses the

first tracking address; and

indicate the second data transfer request may be

combinable with subsequent data transfer requests.

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18.   The article of claim 16, wherein the boundary length

comprises a number that is a power of two, wherein determining

whether the first data transfer request crosses a boundary

address comprises determining whether a most significant bit

10   of the boundary block length is equal to a most significant

bit of the first data transfer request address.

19.   The article of claim 16, wherein at least two

separate sequential streams are tracked for sequential

15   handling, wherein the article further comprises instructions

causing a machine to:

store a tracking address and a corresponding tracking

address counter value for each tracked sequential stream.

20   20.   The article of claim 19, further comprising

instructions causing a machine to:

increment one of the tracking address counters for each

data transfer request determined adjacent to a previous data

transfer request; and

indicate that one of the tracked sequential streams may

5   be released as a combined I/O transfer when a corresponding

one of the tracking address counters is greater than a

specified maximum value.

21.   The article of claim 20, further comprising

10   instructions causing a machine to:

decrement one of the tracking address counters for each

data transfer request determined not adjacent to a previous

data transfer request.

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